

Ms. A. 11. 1. 1. 1.

An

Paper March 1825

Præparat. Esay

On

Antimonium Tartarizatum

Vel

Tartar. Antimonii et Potassa

This subject admits of being considered in so many bearings, that to do them justice would not only give this essay too great length, but would require a more extensive knowledge of the practical application of the medicine to the cure of disease, than the inexperienced author has acquired.

By its variously modified application, it can be made to answer a great diversity of indications, and hence, it becomes one of the most valuable of our Therapeutic resources. Its most powerful and usual effect, is to promote vomiting, and this it does with perfect safety, with more promptness and with greater efficacy,



than any article in the prolix catalogue of *Materia Medica*. It sometimes produces the worst effects of a poison, but this, I believe, never happens in the hands of a sober Physician, and when it occurs, it has been taken for the purpose of committing suicide, or by accident. In these cases the most prompt attention is required.

Its cathartic operation is wonderfully useful in the treatment of some diseases, and is, I believe, more frequently taken advantage of in the southern states, where Bilious fevers prevail more extensively and with greater violence, than it is in the northern and middle states. Of its Purgative operation, I shall say nothing. As a Diaphoretic and expectorant, my attention has been called to it, in consequence of its highly beneficial operation in these characters, in the cure of a most unmanageable and almost unavoidably fatal disease, in a case of which, I employed it last summer, with a perfectly salutary effect.

It is my intention, in this essay, to exhibit a detail of this case, and its result, more for the purpose of acquiring a correct inference, than with the intention of imparting any thing new or original.





After those preliminary observations, I shall now proceed to consider the modes of preparing Tartar Emetic.

In the preparation of this article, the Peroxide of Antimony, must be used, as it is only this oxide and its compounds, that are at all active on the living system, the Peroxide and the preparations made from that oxide, having been found to possess no active properties whatever.

As might be expected of so valuable an article, modes of preparation almost without number have been invented and strenuously recommended. I shall, however, confine myself to two or three of these, the most approved and now generally practised. An exact historical detail of these processes may be considered as wholly superfluous, and I shall consequently proceed immediately to that of those only that are at present recommended.

The process devised by Mr. Phillips embraces

17  
The following is a list of the names of the persons who have been admitted to the office of the Secretary of the Board of Education, since the last meeting of the Board, on the 1st of January, 1871.

1. Mr. J. H. Smith, Secretary of the Board of Education, since the last meeting of the Board, on the 1st of January, 1871.

2. Mr. J. H. Smith, Secretary of the Board of Education, since the last meeting of the Board, on the 1st of January, 1871.

3. Mr. J. H. Smith, Secretary of the Board of Education, since the last meeting of the Board, on the 1st of January, 1871.

4. Mr. J. H. Smith, Secretary of the Board of Education, since the last meeting of the Board, on the 1st of January, 1871.

every requisite, essential to the preparation of Tartar Emetic.

The directs for this purpose the sulphate of Antimony, which is to be prepared by boiling one part of levigated metallic Antimony, with two of sulphuric acid by weight, to dryness, in an Iron vessel, over a common fire, stirring with an Iron Spatula. The powder thus prepared is to be washed with water untill all the uncombined sulphuric acid be separated. Of one hundred parts of the subsulphate thus formed, subjected to ebullition in an Iron vessel, with an equal weight of crystals of Tartar, seventy six will be readily dissolved, and the solution, when filtered, at the first crystallization, will yield rather more than ninety parts of crystals of Tartar Antimoniacale.

By evaporating the solution still farther, an other crop of crystals may be obtained, with however, some impurities from which they may be separated by dissolving them and repeating the crystallization.

The Dublin college recommends the Nitro Muriatic oxide of Antimony in their mode of preparing



Tartar Emetic, which is as follows. Of the Nitrochloride  
oxide of Antimony, take, ℥ij. Of levigated crystals of  
Tartar, ℥ijss. Of distilled water by measure ℥xxvij.

The water is to be boiled in a glass vessel, and hav-  
ing the oxide and Tartar previously mixed, they are  
to be gradually added, and the boiling continued for  
half an hour. The liquor is then to be filtered, through  
paper, and allowed to crystallize by slow cooling.

This is the mode of preparation, in favour of which  
the experienced teacher of the Materia Medica in this  
University does not hesitate to acknowledge his predilection.

Very pure Tartar Emetic may also be  
prepared from the gross of Antimony. I shall, therefore,  
insert this which is the most usual mode of prepar-  
ing our medicine. Take equal parts of the Sulphuretum  
Antimonium vitrification, and the super Tartar Potas,  
previously reduced to a fine powder; put them into  
a glass or earthen vessel, with six times their weight  
of water, boil them for half an hour, stirring them



constantly; then filter and evaporate to dryness.

To collect the Silica and destroy the gelatinous state in which it exists, the residue is to be dissolved in warm water, the solution filtered again, concentrated and set aside to crystallize. When no more crystals are formed, which is in about twenty four hours, the mother water is to be decanted, again concentrated, and permitted to stand and cool, when new crystals will be separated. This process is to be repeated untill no more crystals can be obtained.

The last crystals are frequently impure, and indeed it sometimes happens with those of the first crop.

When this circumstance obtains, they are to be purified by dissolving them and repeating the crystallization.

The crystals of Taster Emetic form in regular tetrahedrons or lengthened octahedrons.

They are nearly transparent at first, but when they are exposed to the atmosphere they slightly effloresce, and present a beautiful, brilliant,





opaque, white, appearance. Their taste is Nauseous,  
acid and metallic.

There has been a difference of opinion  
as to the chemical composition of this salt. Some con-  
sider it merely a tartarate of stannimony and have called  
it *Antimonium Tartarizatum*. Others considering it a  
triple salt composed of Tartaric acid, Antimony, and  
Stash, have called it *Tartarus Antimonii et Stapha.*

According to the new nomenclature the last men-  
tioned name is correct as it expresses the true compo-  
sition of the article; but for the purpose of the Physician  
the old name of *Tartar Emetic* as given to it by Adrian  
Meesicht in 1631 answers much the best, since it  
expresses its properties which are of the greatest conse-  
quence with him. As to its solubility a still  
greater discrepancy of opinion exists, some affirming  
that it dissolves in cold water in the proportion of  
fifteen parts, while others say, that in order to dis-  
solve it sixty parts of boiling water are required. I believe



that it requires about three times its weight of boiling water in order to its solution.

Tartar Emetic is decomposed by most Acids, by the Alkalies and their carbonates, by the Hydro Sulphurates and by many metals, also by soaps, it is also decomposed by most of the Infusions and Decuctions of the vegetable Bitters and Astringents, Gentian and Wormwood affording the principle exceptions, Alkaline Sulphurates do not decompose it when they are perfectly neutral.

I next beg leave to suggest some precepts which should always be attended to previous to the exhibition of an Emetic.

The state of the system particularly demands attention. If it should be in a state of extreme debility, there is great danger least reaction should not take place and the patient must inevitably sink, perhaps irrecoverably. If on the contrary, the system is plethoric Apoplexy or other bad



effects arising from a distended state of the vessels of the brain might ensue. In the first of these cases the Emetic must be carefully avoided, and in the latter its exhibition should always be preceded by venesection; they are not to be used when there is violent inflammation of any of the viscera; they are to be particularly abstained from in advanced pregnancy; nor are they to be used when a prolapsus Uteri or Hernia.

In great emergencies a large dose is to be given at once, but under ordinary circumstances it is better to give the Tartar Emetic in divided doses, violent effects are thus obviated, while the medicine operates with more efficacy.

When we have choice of the time at which to exhibit an Emetic, it will be proper to give it in the morning on an empty stomach. This, however, is a very general rule and one that can not always be complied with.

If it is merely our object to evacuate the stomach,

of the same might come. In the first of these  
the first must be carefully avoided, and  
in the latter, the exhibition should be given  
freedom of discussion, the one not to be  
when there is a subject of importance to be  
discussed, the one to be particularly suitable for  
in ordinary language, and the other to be used  
when a particular theme is chosen.

In general, however, a large class is to be  
at once, but under necessary circumstances, the  
for a given the teacher is to choose the  
which appear in the subject, and in the same  
time, the teacher must be careful.

The in the class of the same subject to be  
as well, it will be found to give it in the same  
as an exact standard. The, however, a very large  
and and the fact that the subject is suitable in the  
of it a number of the subject to be chosen.

large draughts of tepid water or chamomile tea should be freely drunk, but if we wish to extend this operation to the system and produce a strong and revolutionary effect on it, no drink should be allowed.

When the vomiting is inordinate, it may be checked by giving Laudanum combined with some cordial, or by fomentations to the Epigastrie region; cold water dashed on the surface more especially on the extremities will often prove successful, and where it is not likely to prove prejudicial it should be our resort. Sinapisms applied to the ~~extremities~~ will frequently relieve inordinate vomiting.

Tartar Emetic is one of the most certain safe and uniform vomitive medicines in our possession, and by its judicious application as an Emetic we render it one of the most valuable of our Therapeutic resources. As a cathartic it operates no less advantageously in many diseases.





By its Diaphoretic operation, it answers the most important indications, more especially in the treatment of fevers. Its Expectant property renders it useful in all the diseases of the pulmonary system, and to which we resort when these remedies are applicable.

In order to secure these different effects the dose and circumstances have only to be attended to. As an Emetic, it may be given in the dose of from two to six grains. The best manner of administering Tartar Emetic, is not so well determined. Some preferring the viscus solution, while others prefer the simple watery solution. The Antimonial wine is in too general use now, to be superseded in any short time, by any other preparation, though the aqueous solution possesses many advantages, and for several reasons should be used in preference. It is not necessary for me to mention any other mode for its administration, as these are the best and generally adopted.



In order to secure the cathartic operation of Tartar Emetic, it is necessary to cause a little nausea, for this purpose it is best to give it in small doses, such as the fourth of a grain, repeated every half hour; under such circumstances it will operate very mildly, producing, however, plentiful discharges.

Its Tracheitic operation is produced by administering it, in the dose of from the sixteenth to the eighth of a grain, to be repeated *pro re nata*, keeping the patient warmly enveloped in bed.

Expectoration is apt to accompany all these effects, but if it is desirous to have that effect alone the thirty second part of a grain will be sufficient to promote that end.

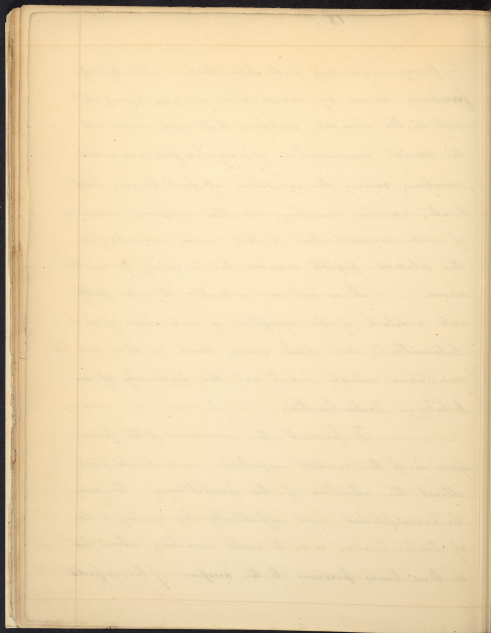
The next point of view in which Tartar Emetic is to be spoken of is its application to the treatment of diseases, in which it may be used with advantage and I shall first speak of its use



in fevers, commencing with Intermittents. This type of ~~fever~~ being caused by Marsh Miasmata and having its seat in the stomach, we find that organ loaded with the foulest accumulations of indigested food and viscid secretions, causing the symptoms of foul tongue, fetid breath, nausea, vomiting and other symptoms indicative of such disordered state of that organ, indicating in the plainest possible manner the propriety of vomitive means.

It is not my intention to enter fully into a detail of the symptoms of each stage of an Intermittent, but shall merely touch on those circumstances which point out the propriety of exhibiting *Tartar Emetic*.

To prevent the recurrence of the paroxysm is of the greatest importance, and should first attract the attention of the practitioner; this may be accomplished most effectually by giving a dose of *Tartar Emetic*, so as to excite vomiting about two or three hours previous to the accession of the expected



paroxysm, the patient should be confined to his bed in which he should be warmly covered so as to excite a perspiration, which may be maintained for several hours; this practice will often prove successful if the case is recent, but if it is one of long standing, more than one operation will be required in order to cure the patient. In such cases a regular course should be instituted. An Emetic every morning in succession for several days, will often cure such cases, after every other mode of treatment has failed. - The paroxysm may also be prevented by exhibiting Tartar Emetic, in minute doses, so as to act as a Diaphoretic. This action it is necessary to keep up for several hours carefully avoiding the slightest exposure.

When from the malignancy of the fever reaction does not fully take place and as a consequence, we have an accumulation of blood in the brain or in the lungs or any of

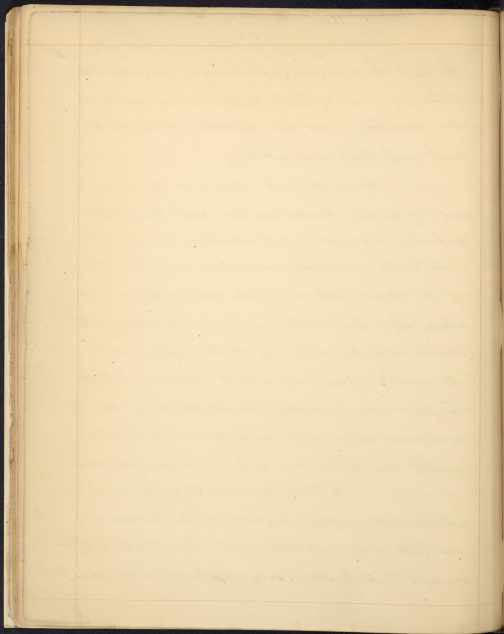
The first of these is the fact that the  
the world is not a uniform whole  
a uniform whole, but a collection of  
many parts, each of which has its  
own life and its own history. The  
life of the world is not a single  
thing, but a series of things, each  
of which is a part of the whole.  
The history of the world is not a  
single thing, but a series of things,  
each of which is a part of the whole.  
The life of the world is not a single  
thing, but a series of things, each  
of which is a part of the whole.  
The history of the world is not a  
single thing, but a series of things,  
each of which is a part of the whole.  
The life of the world is not a single  
thing, but a series of things, each  
of which is a part of the whole.  
The history of the world is not a  
single thing, but a series of things,  
each of which is a part of the whole.



the important viscera, producing a dangerous state of things, a dose of Tartar Emetic so as to excite ac-  
tive vomiting, has been productive of results the  
most important and salutary.

During the cold stage or at the commence-  
ment of the hot, Emetics are used with the greatest  
propriety, and most signal advantage. A dose of  
Tartar Emetic judiciously administered, in the hot stage  
of the disease, will reduce the action of the heart and  
arteries, relieve pain in the head, quiet the sickness of the  
stomach, and, by determining to the surface, equalize  
the circulation, and cause a gentle Diaphoresis, the matter  
perspired being evaporated, the temperature of the body  
is lowered, all of which circumstances tends to restore  
quietness and hasten to a critical solution of the disease.

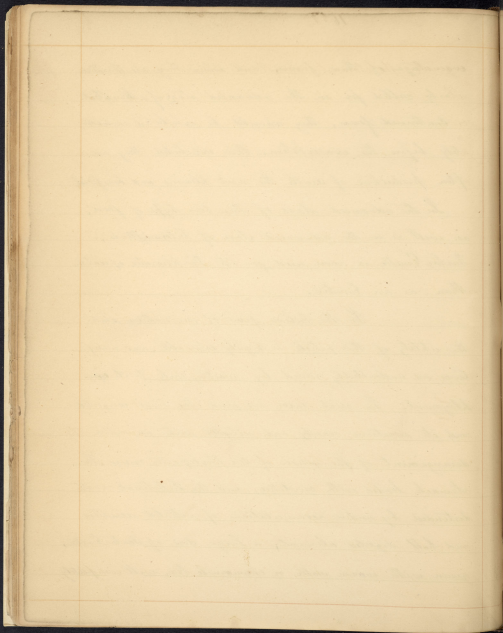
In Remittent and Continued fevers  
attended with symptoms of gastric disorder Emetics are  
used with unequivocal advantage. Unless particularly  
demanded Tartar Emetic is only applicable to the form



ing stage of these fevers, and when they are particularly called for in the advanced stage of a Remittent or Continued fever, they should be exhibited immediately before the exacerbation. - thus exhibited they are often productive of results the most pleasing, and beneficial.

In the advanced stage of these two types of fever, as well as in the advanced stage of Intermitteints, Tartar Emetic is more used for its Diaphoretic operation than as an Emetic.

In the Bilious form of our Southern states the utility of this article is highly estimable, and many lives are undoubtedly saved by resorting early to its employment. In such cases we find the liver congested and its secretions scanty and vitiated with an entire derangement of the whole of the Chyliferous viscera, the stomach loaded with crudities, and the Intestinal canal distended by undue accumulations of vitiated secretions and half digested aliment; a large dose of Tartar Emetic, given with warm water or Chamomile tea, will completely



evacuate the stomach of all its noxious contents, and by extending its operation to the liver, cause an increased secretion from that organ at the same time, that it changes it to a healthy one, nor does its operation stop here, - after it has ceased to cause vomiting, it operates mildly on the bowels, bringing away with their contents, copious evacuations of bile.

There is another mode of administering Tartar Emetic in these cases which is practised more extensively, and which is perhaps preferable. It is to take six grains of Tartar Emetic one ounce of Glauber salt, and eight ounces of hot water, mix, and give one fourth at a dose, to be repeated every fifteen minutes, untill it operates sufficiently as an Emetic a little salt gruel or any similar article, will now be adequate to the removing its operation, and a plentiful but mild cathartic operation will be maintained.

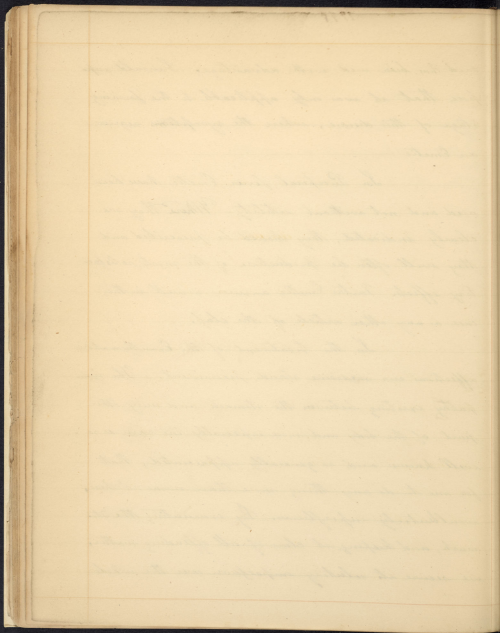
In Typhus fever, Emetic Tartar it is



said has been used with advantage. I would suppose that it was only applicable to the forming stage of this disease, where the symptoms require an Emetic.

In Purpural fever Emetics have been used and not without ability. Where they are clearly indicated, they should be prescribed and they will often be productive of the most satisfactory effects. Tartar Emetic answers as well in this case as any other article of the class.

In the treatment of the Exanthematic affections our medicine stands preeminent. The sympathy existing between the stomach and every other part of the body and more especially the skin is so well known and so generally appreciated, that for me to do any thing more than name it here, would be utterly superfluous. By evacuating the stomach, and keeping it clear of all offending matter, we secure its salutary impulsion over the whole

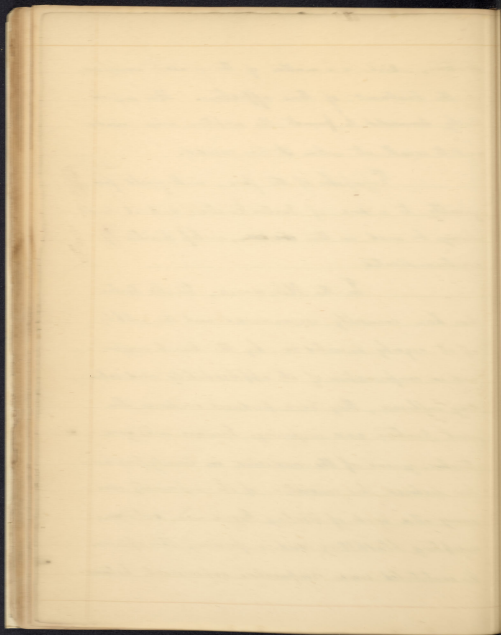




system, which is a matter of the greatest consequence in the treatment of these affections. It is imperatively demanded to promote the eruption when retarded and to recall it when it has receded.

Erysipelas of the face, will yield frequently to a dose of Tartar Emetic; and it should always be used in this disease, unless positively contraindicated.

In the Phlegmosia, Emetic Tartar has been earnestly recommended and the utility of it eagerly insisted on, by the French writers and in confirmation of its applicability and salutary influence, they have produced evidence the most positive and imposing. Saennec who gave twelve grains of the medicine in twenty-four hours has declared his conviction of its superiority over every other mode of treating Pneumonia, not even, excepting bloodletting and in forming this opinion, he instituted some comparative experiments between

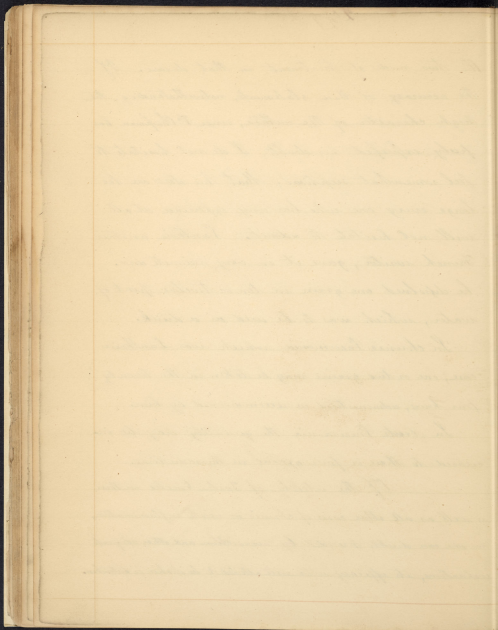


the two modes of treatment in that disease. Of the accuracy of these statements, notwithstanding, the high character of the author, since F. Chapman has freely expressed his doubts, I do not hesitate to feel somewhat sceptical; that his doses are too large every one who has any experience at all will not hesitate to admit. Lanthois another French writer, gave it in very minute doses. he dissolved one grain in ten or twelve pints of water, which was to be used as a drink.

In chronic Pneumonia which was Lanthois's case, one or two grains may be taken in the twenty four hours, administered as recommended by him.

In acute Pneumonia the quantity may be increased to three or four grains in the same time.

Of the utility of Tartar Emetic in these as well as all other cases of chronic or acute inflammation, no one can doubt; preceded by venesection and other adequate evacuations, its efficacy is too well attested to be shaken or disturbed.



The beneficial effects of Tartar Emetic in the treatment of the Phlegmasia, I believe will be strongly illustrated in the relation of the case to which I alluded in the introduction to this Essay.

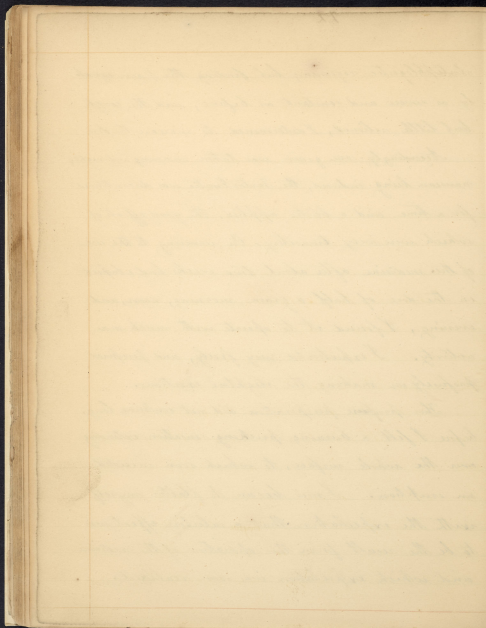
On the last of February 1824 I was attacked with a discharge of bright, red, frothy, blood from my lungs, and an extreme prostration of muscular power. After several weeks confinement I slowly recovered, but from imprudence in diet a pain in the affected side continued with some febrile action. A harassing cough ensuing, I began to apprehend that it was about to terminate in pulmonary consumption, and resolved immediately to submit myself to medical treatment, being anxious to ascertain the real value of Tartar Emetic in this particular form of disease, and thinking my case suited to its application, I took half a grain morning and evening for about six weeks, in conjunction with occasional bloodletting, saline purgatives, and the strictest



antiphlogistic regimen; but finding the pain equal  
 by as severe and constant as before, and the cough  
 but little relieved, I determined to increase the dose.

Accordingly, one grain was taken morning and night;  
 nausea being induced, the Tartar Emetic was discontinued  
 for a time and a blister applied, the good effects of  
 which were very transitory. On recurring to the use  
 of the medicine after about two weeks had elapsed  
 in the dose of half a grain morning, noon, and  
 evening, I found it to operate with much more  
 activity. I expectorated very freely, and perspired  
 profusely on making the slightest exertions.

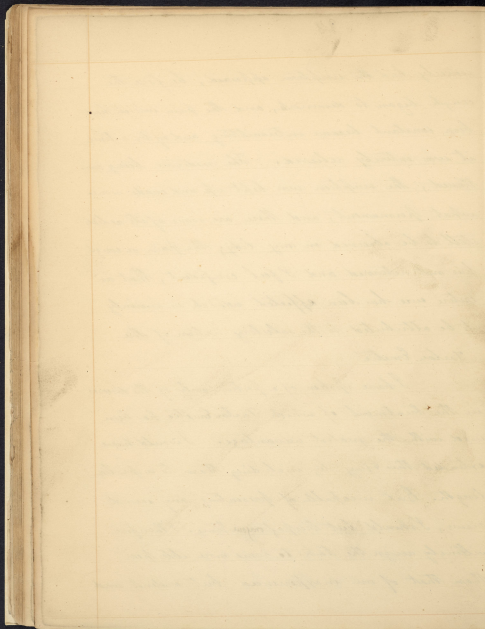
This profuse perspiration did not continue long,  
 before I felt a burning pricking sensation extending  
 over the whole surface, to which soon succeeded  
 an eruption. I now began to flatter myself  
 with the expectation that a salutary effect was  
 to be the result from this operation of the medicine  
 and which expectation was soon realized.





scarcely had the eruption appeared, before the cough began to diminish, and the pain which had been constant became intermitting and after a time it was entirely relieved. The medicine being continued, the eruption was kept up and made somewhat permanent, and there are some of its relics still to be observed on my body; the pain or cough has not returned and I feel confident, that an entire cure has been effected which is mainly to be attributed to the salutary action of the Tartar Emetic.

I have spoken of a portion only of the diseases in the treatment of which Tartar Emetic has been used with the greatest advantage. I would have extended this Essay by including them to a proper length. But incapable of presenting any sound views, I should but trespass ~~on your~~ time. I therefore willingly resign the task to some more able pen than that of an inexperienced but ardent and



enthusiastic student.

Thomas, Peter, George, Stephen  
 of Georgia.

